

**Water Body Fact Sheets for 2002  
Section 303(d) List Update  
Lahontan Region**

***TRUCKEE RIVER AND LITTLE TRUCKEE RIVER  
HYDROLOGIC UNITS***

**California Regional Water Quality Control Board, Lahontan Region  
2501 Lake Tahoe Boulevard  
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**DONNER LAKE, PRIORITY ORGANICS**  
**2002 Section 303(d) Fact Sheet**  
**Delisting**

**Rationale for Delisting**

Donner Lake, in the Truckee River watershed, is proposed for removal from the Section 303(d) list because listing was based on limited data which do not, in Regional Board staff's opinion, constitute conclusive evidence of impairment.

Under the California State Water Resources Control Board's Toxic Substances Monitoring Program (TSMP) fish tissue samples have been collected since 1978 and analyzed since for toxic trace metals and organic compounds. As the *TSMP Data Base Description* explains:

*"The TSMP is a sentinel program; it provides the State Water Board, other agencies, and the public, with an early warning of higher than expected concentrations of pollutants at specific sites. TSMP findings often lead to more intensive local follow-up studies for identifying sources of pollutants, and to cleanup and abatement orders and enforcement actions by the Regional Water Boards."*

TSMP results for edible (fish filet) tissue can be compared to human fish consumption criteria for various toxic substances. In the past, the State Water Resources Control Board directed that surface waters be listed if tissue concentrations exceeded the "Maximum Tissue Residue Level" (MTRL) criteria calculated by the California Office of Environmental Health Hazard Assessment (OEHHA). However, because sample numbers in the TSMP are small and are not designed to be statistically representative of the fish population in a give water body, there appears to be insufficient evidence to justify listing on the basis of TSMP results alone. Lahontan Regional Board staff recommend that no new waters be listed solely because of TSMP results and that waters previously listed because of TSMP results be delisted unless there is other evidence of impairment.

Donner Lake was listed due to TSMP results showing filet concentrations of polychlorinated biphenyls (PCBs) and of the pesticide chlordane above the then-current MTRLs. PCBs were also detected in a TSMP sample of Donner Lake sediment. The following concentrations of total PCBs were found in filet tissue sampled from Donner Lake in 1991 and 1993.

<b>Year</b>	<b>Species</b>	<b># of Fish</b>	<b>Age of Fish</b>	<b>PCB Concentration</b>
1991	Kokanee salmon	7	3-4 years	165 ppb
1993	Lake trout	6	6-8 years	102 ppb

## **Donner Lake, Priority Organics 2002 Section 303(d) Fact Sheet, Page 2**

The OEHHA has recently recalculated MTRLs based on criteria in the U.S. Environmental Protection Agency's California Toxics Rule (40.CFR.131.38). The current MTRL for "PCBs (total)" is 5.3 ug/kg (micrograms per kilogram, equivalent to parts per billion or ppb) in fish filet tissue. PCBs are now banned from use; potential historic sources include spills from I-80 or the railroad, power transformers, exposure of planted fish during early development in a hatchery, and atmospheric deposition. (PCBs detected in remote waters of the Lake Tahoe Basin have been attributed to atmospheric deposition.)

The current MTRL for total chlordane, 8.0 ug/kg (micrograms per kilogram or parts per billion) is based on the California Toxics Rule (40CFR 131.38). The filet tissue concentration of chlordane in kokanee salmon collected in Donner Lake in 1991 was 26.2 ppb. Chlordane is now banned from use; historic sources in the Donner Lake watershed may include stormwater from development around the lake, spills from I-80 or the railroad, atmospheric deposition, or exposure of planted game fish to pesticides at a fish hatchery.

Although the historic TSMP samples exceed the current MTRLs for PCBs and chlordane, there are no past or current OEHHA fish consumption advisories for Donner Lake. No recent data are available on ambient PCB or chlordane concentrations in sediment or water.

### **Watershed Characteristics**

Donner Lake, with an area of 960 acres, is located in Nevada County; its watershed includes portions of Placer and Nevada Counties. It has several relatively small tributary streams, and is tributary to the Truckee River via Donner Creek. The lake is managed as a reservoir. It provides domestic supply to surrounding development and contributes to domestic supply for the Reno, Nevada area. Land use in the watershed includes residential and commercial development, Donner Memorial State Park, Interstate 80, and a railroad. The lake supports a recreational fishery.

### **Recommendation**

Donner Lake is proposed to be removed from the Section 303(d) list and added to a "watch list" of waters needing further monitoring and assessment to determine the need for TMDLs. Listing for PCBs or chlordane may be reconsidered in the future if there is evidence of significant impacts on beneficial uses of the lake.

### **Information Sources**

California Office of Environmental Health Hazard Assessment, 1999. Fish consumption advisories statewide and General Information. Available on the Internet:

<http://www.oehha.ca.gov/general/99fish.html>.

**Donner Lake, Priority Organics**  
**2002 Section 303(d) Fact Sheet, Page 3**

California Regional Water Quality Control Board, Lahontan Region, 2001. *Staff Report on Recommended Changes to Lahontan Region's Section 303(d) List of Impaired Surface Water Bodies*.

California State Water Resources Control Board, Toxic Substances Monitoring Program database.

California State Water Resources Control Board, 1995. *Toxic Substances Monitoring Program (TSMP), Freshwater Bioaccumulation Monitoring Program, Data Base Description*. Revised September 1995.

Datta, S. and 4 other authors, 1998. *Evidence for Atmospheric Transport and Deposition for Polychlorinated Biphenyls to the Lake Tahoe Basin, California-Nevada*. Available on the Internet: <http://www.nal.usda.gov/ttic/tektran/data/000009/25/0000092538.html>.

**STAMPEDE RESERVOIR, PESTICIDES**  
**2002 Section 303(d) Fact Sheet**  
**Delisting**

**Rationale for Delisting**

Stampede Reservoir, in the Little Truckee River watershed, is recommended for delisting because listing was based on limited data and there is no current evidence of impairment.

Under the California State Water Resources Control Board's Toxic Substances Monitoring Program (TSMP) fish tissue samples have been collected since 1978 and analyzed since for toxic trace metals and organic compounds. As the *TSMP Data Base Description* explains:

*“The TSMP is a sentinel program; it provides the State Water Board, other agencies, and the public, with an early warning of higher than expected concentrations of pollutants at specific sites. TSMP findings often lead to more intensive local follow-up studies for identifying sources of pollutants, and to cleanup and abatement orders and enforcement actions by the Regional Water Boards.”*

TSMP results for edible (fish file) tissue can be compared to human fish consumption criteria for various toxic substances. In the past, the State Water Resources Control Board has directed that surface waters be listed if tissue concentrations exceed the “Maximum Tissue Residue Level” (MTRL) criteria calculated by the California Office of Environmental Health Hazard Assessment (OEHHA). However, because sample numbers in the TSMP are small and are not designed to be statistically representative of the fish population in a given water body, there appears to be insufficient evidence to justify listing on the basis of TSMP results alone. Lahontan Regional Board staff recommend that no new waters be listed solely because of TSMP results and that waters previously listed because of TSMP results be delisted unless there is other evidence of impairment..

The current MTRL for lindane (gamma hexachlorocyclohexane or HCH), is 2.5 micrograms per kilogram (ug/kg or ppb) in fish file tissue. The TSMP lindane concentration for kokanee salmon tissue sampled in Stampede Reservoir in 1989 was 2.6 ug/kg, exceeding the MTRL only slightly. No fish consumption advisory is currently in effect for Stampede Reservoir, and no ambient lindane data are available for the water column or sediment.

**Watershed Characteristics**

Stampede Reservoir is located on the Little Truckee River in Sierra County. Its watershed includes portions of Nevada and Sierra Counties. It has several tributary streams including Sagehen Creek. It is managed by a federal watermaster as part of the Truckee River system which provides domestic supplies to the Reno, Nevada area and supports threatened/endangered fish in Pyramid Lake. Water is released from Stampede Reservoir to the Little Truckee River and stored in Boca Reservoir before being released to the Truckee River. The watershed of Stampede Reservoir is largely undeveloped, but has been disturbed by logging, grazing and wildfires. Stampede Reservoir supports a recreational fishery.

**Stampede Reservoir, Pesticides**  
**2002 Section 303(d) Fact Sheet, Page 2**

**Recommendation**

Stampede Reservoir is proposed to be removed from the Section 303(d) list and added to a “watch list” of waters needing further monitoring and assessment to determine the need for TMDLs. Listing for lindane may be reconsidered in the future if there is evidence of significant impacts on beneficial uses of the reservoir.

**Information Sources**

California Office of Environmental Health Hazard Assessment, 1999. Fish consumption advisories statewide and General Information. Available on the Internet:

<http://www.oehha.ca.gov/general/99fish.html>.

California Regional Water Quality Control Board, Lahontan Region, 2001. *Staff Report on Recommended Changes to Lahontan Region's Section 303(d) List of Impaired Surface Water Bodies*.

California State Water Resources Control Board, Toxic Substances Monitoring Program database.

California State Water Resources Control Board, 1995. *Toxic Substances Monitoring Program (TSMP), Freshwater Bioaccumulation Monitoring Program, Data Base Description*. Revised September 1995.